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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Inventors:

Parag M. Doshi et al.

Case:

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Serial No.:

10/055,333

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Christopher P. Grey

Group Art Unit:

2416

Title:

Apparatus and Method for Enabling Optimized Gateway Selection for

Inter-Working between Circuit-Switched and Internet Telephony

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SIR:

APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2416 mailed December 2, 2008 finally rejecting claims 1 - 30.

In the event that an extension of time is required for this appeal brief to be considered timely, and a petition therefor does not otherwise accompany this appeal brief, any necessary extension of time is hereby petitioned for.

Appellants believe the only fee due is the \$30 difference between the Appeal Brief fee paid with the filing of Appellants' Appeal Brief on August 26, 2008 and the current \$540 Appeal Brief fee. Kindly charge such fee (and any other fees due to make this filing timely and complete) to Deposit Account No. 50-4802/ALU/124516.

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Real Party in Interest

The real party in interest is LUCENT TECHNOLOGIES INC.

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Related Appeals and Interferences

Appellants assert that no appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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Status of Claims

Claims 1-30 are pending in the application. Claims 1-30 were originally presented in the application. Claims 1-2, 5, 12-13, 16, and 21-22 have been amended. Claims 1-30 stand finally rejected as discussed below. The final rejection of claims 1-30 is appealed.

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Status of Amendments

All claim amendments have been entered.

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Summary of Claimed Subject Matter

Embodiments of the present invention are generally directed to a method and apparatus for inter-working between a circuit-switched network and Internet telephony More specifically, one embodiment of the invention is a method for selecting a gateway for interworking between two networks supporting different network protocols. The method includes querying a unified location management device storing location information for users of the network protocols, including mobile users. The method further includes relaying, from the unified location manager, mobile user location related information about a user of one of the networks and selecting the gateway based on this location information. When calls are made from an internet telephony device to a mobile device, the unified location manager operates as an inbound proxy for a given IP domain. The unified location manager provides for selecting a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device bypasses the mobile device's home Mobile Switching Center (MSC) or gateway MSC. For calls made from a Public Switched Telephone Network (PSTN) device to an internet telephony user, the method employs cellular numbers to denote internet telephony telephones.

For the convenience of the Board of Patent Appeals and Interferences, Appellants' independent claims 1, 12, and 21 are presented below with citations to various figures and appropriate citations to at least one portion of the specification for elements of the appealed claims.

Claim 1 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

1. (Previously Presented) A method of selecting a gateway (16, 54, 211, 213) for interworking between a first and second network (103,117) supporting different network protocols, said method comprising the steps of:

querying a unified location management device (50, 101) having location information (203) stored therein for users of said different network protocols, said users including mobile (14) users;

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> relaying mobile user location related information (203) from said unified location manager (50, 101) regarding a user of said one of said first (103) and second network (117); and

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selecting said gateway (16, 54, 211, 213) based on said location information (203) provided;

wherein for calls from an internet telephony device to a mobile device (14), said unified location manager (50, 101) operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device (14) bypasses the mobile device's home MSC or gateway MSC (18); and for PSTN originated calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

Support for the elements of claim 1 can be found at least from the following sections of Appellants' specification: page 2, lines 12 - 27; page 7, line 24 - page 8, line 16; page 8, line 29 - page 9 line 31; page 10, lines 6 - 28; page 11, line 28 - page 15, line 24; and Figs. 2 and 4-7.

Claim 12 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

12. A method used for selecting a (Previously Presented) gateway (16, 54, 211, 213) for a call from a first network (103) to a mobile user in a second network (117), said first and second network (113, 117) supporting different network protocols, said method comprising the steps of:

querying a unified location management device (50, 101) having location information (203) for multiple mobile network technologies stored therein; and

providing location related information (203) for said mobile user in said second network (117) for use by said first network (103) in selection of said gateway (16, 54, 211, 213),

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> wherein for calls from an internet telephony device to a mobile device (14), said unified location manager (50, 101) operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device (14) bypasses the mobile device's home MSC or gateway MSC (18); and for PSTN calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

Support for the elements of claim 12 can be found at least from the following sections of Appellants' specification: page 2, lines 12 - 27; page 7, line 24 - page 8, line 16; page 8, line 29 - page 9 line 31; page 10, lines 6 - 28; page 11, line 28 - page 15, line 24; and Figs. 2 and 4-7.

Claim 21 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

21. (Previously Presented) An apparatus (50, 101) for enabling optimized gateway (211, 213, 215, 217, 219, 221) selection for interworking between a first (103) and second network (117), said apparatus comprising

a data server (52, 201) for storing location (203) and service profile data (205) for multiple differing network technologies including mobile network technology;

at least two network protocol gateways (54, 211, 213, 215, 217, 219, 221) for translating incoming location information requests into a protocol independent format:

a processor for interfacing between said data server (52) and said protocol gateways (54, 211, 213, 215, 217, 219, 221), wherein mobile user location related information (211, 213, 215, 217, 219, 221) is able to be provided by said apparatus (50, 101) for use in selection of said gateway (211, 213, 215, 217, 219, 221),

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> wherein for calls from an internet telephony user/device to a mobile device (14), said apparatus (50, 101) operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device (14) bypasses the mobile device's home MSC or gateway MSC (18); and for PSTN originated calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

Support for the elements of claim 21 can be found at least from the following sections of Appellants' specification: page 2, lines 12 - 21; page 2, line 28 - page 3, line 2; page 7, line 24 - page 8, line 16; page 8, line 29 - page 9 line 31; page 10, lines 6 - 28; page 11, line 28 - page 15, line 24; and Figs. 2 and 4 - 7.

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Grounds of Rejection to be Reviewed on Appeal

Claims 1, 4, 5 - 12, 15 - 21, and 24 - 30 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Valentine et al., U.S. Patent No. 6,504,839 (hereinafter, "Valentine") in view of Yegoshin (hereinafter, "Yegoshin"), U.S. Patent No. 6,711,146.

Claims 2, 3, 13, 14, 22, and 23 have been rejected under 35 USC §103(a) as being unpatentable over Valentine in view of Yegoshin in view of the admitted prior art.

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Arguments

I. Rejection of claims 1, 4, 5 – 12, 15 – 21, and 24-30 under 35 USC §103(a) over Valentine in view of Yegoshin

Claims 1, 4, 5 - 12, 15 - 21, and 24 - 30 have been rejected under 35 USC §103(a) as being unpatentable over Valentine et al., U.S. Patent No. 6,504,839 (hereinafter "Valentine"), in view of Yegoshin, U.S. Patent No. 6,711,146 (hereinafter "Yegoshin"). The rejection is respectfully traversed.

A. The Applicable Law

The Examiner bears the initial burden of establishing a prima facie case of obviousness. See MPEP § 2141. Establishing a prima facie case of obviousness begins with first resolving the factual inquiries of Graham v. John Deere Co. 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. The key to supporting a rejection under 35 U.S.C. §103 is the clear articulation of the reasons why the claimed invention would have been obvious. The analysis supporting such a rejection must be explicit. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006), cited with approval in *KSR Int'l Co. v. Teleflex, Inc.*, 126 S. Ct. 2965 (2006); see also MPEP §2141.

B. The References

Valentine

Valentine is generally directed to wireless communications systems. More specifically, Valentine discloses a system and method for routing information from a

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packet-switched network to a mobile device communicating with a wireless telecommunications network. Call requests for a mobile device are redirected to the serving node of the wireless network that is in communication with the mobile device when the serving node is coupled to the packet-switched network, thereby bypassing the circuit switch network. In particular, when a call is received at a node in the wireless network, the serving node of the wireless network is determined. The service node is determined by querying a database of a location resource of the wireless network using a unique identifier of the mobile device, where the database includes an association between the unique identifier and the serving node. When the serving node is coupled to the packet switched network, the call request is redirected to the serving node, instead of routing such information through a circuit switch network. When the serving node is not coupled to the packet switched network, the call is routed from the first node to the serving node through a circuit-switched network coupled intermediate to the first node and the serving node (see e.g., Valentine, col. 1, lines 10 - 14; col. 2, lines 11 - 63; col. 3, lines 49 - 56; and Figs. 2 - 3).

Yegoshin

Yegoshin is generally directed to telephony communications, including IP network telephony communication. More specifically, Yegoshin discloses a dual-mode communications device that is capable of both cell phone communications and telephone communications on a local area network (LAN). When the user of the communications device is visiting an IP LAN, the user plugs-in or otherwise connects the communications device to the LAN such that calls addressed to the communications device are routed to the communications device via the LAN. To provide such a service for the user of the communications device, a temporary IP address is assigned to the communications device, where the IP address is associated with a PSTN-connected server on the LAN with the cell phone number of the communications device. The IP server notifies a PSTN connected routing serer when the communications device logs on to the LAN and provides a destination number for the IP server. Then, cell calls addressed to the communications device are first redirected to the IP server, and then, redirected to the

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communications device connected to the LAN (see e.g., Yegoshin, Abstract; col. 3, line 11 - col. 4, line 34; and Fig. 2).

C. Arguments

As preliminary matter, Appellants note that the finality of the last Office Action is improper. In particular, the Examiner has introduced new grounds for rejecting Appellants' claims, i.e., new references and new arguments, which were neither necessitated by Appellants' amendments, nor by information submitted by Appellants (see MPEP §706.07(a)). After the First Office Action on the merits has been issued, no Information Disclosure Statement has been submitted. Further, though Appellant has amended the claims in response to the First Office Action, such amendments were fully considered by the Examiner at the time the first Final Office Action was issued. Since then, Appellants did not make any amendments. In response to the first Final Office action, Appellants appealed the rejection. Upon considering the first Appeal Brief, the Examiner has reopened the prosecution. Because, after Appellants' last amendments, the Examiner had already issued an Office Action, i.e., the previous Final Office Action, and reopened the prosecution upon Appellants filing the first Appeal Brief, the new grounds of rejection in the last Final Office Action were most certainly not necessitated by Appellants' amendments. Accordingly, the finality of the last Office Action is improper.

Claims 1 and 21

a.) Examiner's Arguments

1. The Examiner suggests that Valentine teaches "a unified location management device having location information stored therein for users of said different network protocols," as recited in independent claims 1 and 21. The Examiner appears to equate a Home Location Resource (HLR) and its database with Appellants' unified location management device. In particular, the Examiner states that "the database includes location data of the mobile device, specifically the identity of the MSC that is associated with the mobile, where ... the MSC may have internet protocol capability or not, where not indicates another protocol" (see Final Office Action, page 3).

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- 2. The Examiner suggests that Valentine teaches selecting a gateway based on the location information provided, as recited in claims 1 and 21, because Fig. 2 shows that "the access server initiates a redirected call request that indicates that a selection of the gateway 232 occurs, where the redirection is based on an IP address received as the location info from the HLR" (see Final Office Action, pages 3-4).
- 3. The Examiner suggests that Valentine teaches the unified management device acting as inbound proxy for a given domain, as recited in independent claims 1 and 21, according to messages sent by the HLR in Valentine and according to Fig. 2 of Valentine where HLR allows for the redirection of a call request.

b.) Appellants' response to the Examiner's arguments

1. Contrary to the Examiner's suggestion, Valentine does not teach or suggest "a unified location management device having location information stored therein <u>for users</u> of said different network protocols," as recited in independent claims 1 and 21, and thus, a *prima facie* case of obviousness has not been established.

The Examiner appears to equate a Home Location Resource (HLR) and its database with Appellants' unified location management device. Such an interpretation is improper. As described in Valentine, HLR may contain location data of mobile devices and data about Mobile Switching Centers (MSCs) associated with the mobile devices. Therefore, in context of claim 1, such mobile devices arguably might be interpreted as users. However, neither Valentine teaches, nor the Examiner presents arguments that such users use different protocols. Rather, the Examiner states that because "the MSC may have internet protocol capability or not, where not indicates another protocol," HLR is the unified location management device having location information stored for users of different network protocols. However, in the context of claim 1, MSCs simply cannot be equated with users of Appellants' claim 1, and thus, whether the MSCs support different protocols or not is irrelevant. Furthermore, the Examiner's interpretation of the MSCs as Appellants' users is inconsistent with the Examiner's interpretation of Appellants' relaying step of claim 1 (see Final Office Action, page 3).

Accordingly, the Examiner's argument that Valentine describes a unified location management device having location information stored therein for users of said different

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network protocols fails, and thus, a *prima facie* case of obviousness with respect to claims 1 and 21 has not been established. The rejection of claims 1 and 21 should be withdrawn.

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2. Contrary to the Examiner's suggestion, Valentine does not teach or suggest "selecting said gateway based on said location information provided," as recited in independent claims 1 and 21, and thus, a *prima facie* case of obviousness has not been established.

More specifically, the Examiner equates the MSC 232 of Fig. 2 with the gateway of Appellants' claim 1. Notwithstanding whether such an interpretation is proper, unlike Appellants' claims 1 and 21, Valentine fails to disclose that such a gateway has been selected based on the location information. The action of "selecting" necessarily involves an ability to choose, and thus, more than one gateway should be available for selection before a gateway could be selected. However, Valentine expressly describes that HLR 234 includes a one-to-one association between the MSC 232 and the mobile node (see col. 6, lines 13 – 18). Because the MSC 232 has been pre-assigned to the mobile device, no selection of a gateway could be made, and certainly no selection based on the provided location information.

Accordingly, the Examiner's argument that Valentine describes selecting of the gateway based on the location provided fails, and thus, a *prima facie* case of obviousness with respect to claims 1 and 21 has not been established. The rejection of claims 1 and 21 should be withdrawn.

3. Contrary to the Examiner's suggestion, Valentine does not teach or suggest a unified location manager that operates as in inbound proxy for a given IP domain for calls from an internet telephony to a mobile device, and thus a *prima facie* case of obviousness has not been established.

Appellants' claim 1 recites:

"wherein for calls from an internet telephony device to a mobile device, said unified location manager operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to

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the mobile device bypasses the mobile device's home MSC or gateway MSC"

(emphasis added). Claim 21 recites similar features. The Examiner, however, fails to acknowledge the "IP" characteristic of the given domain recited in claims 1 and 21. Rather, the Examiner merely presents arguments with respect to "an inbound proxy for a given domain" (see Final Office Action, page 4). To establish a *prima facie* case of obviousness, the Examiner must ascertain the differences between the claimed invention and the prior art, which could not have been done without addressing all of the claims features. Because the Examiner fails to address at least one of the features of claims 1 and 21, a *prima facie* case of obviousness with respect to claims 1 and 21 has not been restablished

Moreover, the Examiner does not explain for which particular domain the HLR acts as an inbound proxy. Fig. 2 does not show any particular domain for which the HLR acts as inbound proxy. Rather, Fig. 2 shows HLR in a direct communication with GMSC 231 and MSC 232. However, neither of these components can be considered as an IP domain.

In contrast, Appellants' clams 1 and 21 expressly recite that the unified location manager acts as inbound proxy for a given IP domain. For Example, as described in Appellants' specification with respect to Fig. 6, UMM 55 may act as inbound proxy for a given IP domain <u>umm.com</u> (see e.g., page 11, line 28 – page 12, line 16).

Accordingly, the Examiner's argument that Valentine describes the HLR acting as inbound proxy for a given IP domain fails, and thus, a *prima facie* case of obviousness with respect to claims 1 and 21 has not been established. The rejection of claim 1 should be withdrawn.

Claim 12

a.) Examiner's Arguments

1. The Examiner repeats the arguments presented with respect to claim 1 that are identified above (see Final Office Action, pages 7-9).

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b.) Appellants' response to the Examiner's arguments

1. A prima facie case of obviousness with respect to claim 12 has not been established for at least two reasons. First, as discussed above with respect to claims 1 and 21, the Examiner's arguments regarding points 1, 2, and 3 fail, while claim 12 recites some of the features discussed in these points. Second, Appellants' claim 12 differs from Appellants' claim 1 in a number of features. For example, claim 12 recites the following features that differ from claim 1:

"querying a unified location management device having location information for multiple mobile network technologies stored therein; and providing location related information for said mobile user in said second network for use by said first network in selection of said gateway"

(emphasis added). The Examiner, however, fails to acknowledge these features. Rather, the Examiner merely repeats the arguments presented with respect to claim 1 (compare Final Office Action, pages 3-5 with pages 7-9). To establish a *prima facie* case of obviousness, the Examiner must ascertain the differences between the claimed invention and the prior art, which could not have been done without addressing all of the features of the claim. Because the Examiner fails to address at least some of the features of claim 12, a prima facie case of obviousness with respect to claim 12 has not been established, and thus, the rejection of claim 12 is improper. Accordingly, the rejection should be withdrawn.

Claims 8, 18, and 27

With respect to claims 8, 18, and 27, Examiner has not provided any rationale as to why the differences identified by the Examiner between Appellants' claimed inventions of dependent claims 8, 18, and 27 and the primary reference, i.e., Valentine would have been obvious to a person skilled in the art. Rather, the Examiner merely cites portions of Yegoshin that allegedly teach the claims limitations. However, "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F. 3d 977, 988 (CA Fed. 2006), cited with approval in KSR Int'l Co. v. Teleflex, Inc., 126 S. Ct. 2965 (2006); see also MPEP §2141 III. "Office personnel must explain why the difference(s) between the prior art and the

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claimed invention would have been obvious to one of ordinary skill in the art." See MPEP §2141 III (emphasis added). Therefore, a prima facie case of obviousness with respect to claims 8, 18, and 27 has not been established, and thus the rejection should be withdrawn.

Claims 4, 5 - 11, 15 - 20, and 24 - 30

Claims 4, 5 - 11, 15 - 20, and 24 - 30 depend directly or indirectly from independent claims 1, 12, and 21 and recite additional limitations. For the reasons discussed above, claims 1, 12, and 21 are not obvious over Valentine in view of Accordingly, each claim that depends from such independent claims, including claims 4, 5 - 11, 15 - 20, and 24 - 30, is also not obvious over Valentine in view of Yegoshin. As such, Appellants submit that dependent claims 4, 5-11, 15-20, and 24 - 30 are allowable under 35 U.S.C. §103, and thus, the rejection should be withdrawn.

II. Rejection of claims 2, 3, 13, 14, 22 and 23 under 35 USC §103(a) over Valentine in view of Yegoshin and in view of the admitted art.

Claims 2, 3, 13, 14, 22, and 23 have been rejected under 35 USC §103(a) as being unpatentable over Valentine in view of Yegoshin in view of the admitted prior art. The rejection is respectfully traversed.

Claims 2, 3, 13, 14, 22, and 23 depend directly or indirectly from independent claims 1, 12 and 21 and recite additional limitations. For the reasons discussed above, claims 1, 12, and 21 are not obvious over Valentine in view of Yegoshin. Accordingly, each claim that depends from such independent claims, including claims 2, 3, 13, 14, 22, and 23, is also not obvious over Valentine in view of Yegoshin. As such, Appellants submit that dependent claims 42, 3, 13, 14, 22, and 23 are allowable under 35 U.S.C. §103, and thus, the rejection should be withdrawn.

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Conclusion

Thus, Appellants submit that all of the claims presently in the application are allowable under the provisions of 35 U.S.C. §103.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1 - 30 is improper. Reversal of the rejections of the Final Office Action is respectfully requested.

Respectfully submitted,

Dated: 4/2/09

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CLAIMS APPENDIX

1. (Previously Presented) A method of selecting a gateway for interworking between a first and second network supporting different network protocols, said method comprising the steps of:

querying a unified location management device having location information stored therein for users of said different network protocols, said users including mobile users;

relaying mobile user location related information from said unified location manager regarding a user of said one of said first and second network; and

selecting said gateway based on said location information provided;

wherein for calls from an internet telephony device to a mobile device, said unified location manager operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device bypasses the mobile device's home MSC or gateway MSC; and for PSTN originated calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

- 2. (Previously Presented) The method of claim 1, wherein said step of selecting is optimized by providing a selection that minimizes any one of triangle routing, a PSTN call leg or an Internet call leg.
- 3. (Original) The method of claim 1, wherein selection of said gateway is optimized by selecting a gateway that minimizes a circuit switched portion of a call.
- 4. (Original) The method of claim 1, wherein said location related information is used to assign a location dependent routable temporary telephone number for use in said gateway selection.
- 5. (Previously Presented) The method of claim 1, wherein said internet telephony accounts are SIP accounts.

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- 6. (Original) The method of claim 1, wherein said mobile location information can correspond to an internet telephony user.
- 7. (Original) The method of claim 6, wherein said location related information provides assignment of a GSM/UMTS temporary phone number.
- 8. (Original) The method of claim 1, wherein said unified location manager is operable as a home location register for cellular networks and as a user registration and address resolution device for internet telephony networks.
- 9. (Original) The method of claim 1, wherein said universal location manager uses a current Care-of-Address for providing said location related information for a mobile Internet telephony user.
- 10. (Original) The method of claim 1, wherein one of said first and second networks is circuit switched network and one of said first and second networks is an internet telephony network.
- 11. (Original) The method of claim 1, wherein the plurality of network protocols comprises at least two of ANSI-41, GSM MAP, SIP, H.323.
- 12. (Previously Presented) A method used for selecting a gateway for a call from a first network to a mobile user in a second network, said first and second network supporting different network protocols, said method comprising the steps of:

querying a unified location management device having location information for multiple mobile network technologies stored therein; and

providing location related information for said mobile user in said second network for use by said first network in selection of said gateway;

wherein for calls from an internet telephony device to a mobile device, said unified location manager operates as an inbound proxy for a given IP domain Serial No. 10/055,333 Page 23 of 27

allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device bypasses the mobile device's home MSC or gateway MSC; and for PSTN calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

- 13. (Previously Presented) The method of claim 12, wherein said selecting is optimized by providing a selection that minimizes any one of triangle routing, a PSTN call leg or an Internet call leg.
- 14. (Original) The method of claim 12, wherein selection of said gateway is optimized by selecting a gateway that minimizes a circuit switched portion of a call.
- 15. (Original) The method of claim 12, wherein said location related information is used to assign a location dependent routable temporary telephone number for use in said gateway selection.
- 16. (Previously Presented) The method of claim 12, wherein said internet telephony accounts are SIP accounts.
- 17. (Original) The method of claim 12, wherein said mobile location information can correspond to an internet telephony user.
- 18. (Original) The method of claim 12, wherein said unified location manager is operable as a home location register for cellular networks and as a user registration and address resolution device for internet telephony networks.
- 19. (Original) The method of claim 12, wherein said universal location manager uses a current Care-of-Address for providing said location related information for a mobile Internet telephony user.

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- 20. (Original) The method of claim 12, wherein one of said first and second networks is circuit switched network and one of said first and second networks is an internet telephony network.
- An apparatus for enabling optimized gateway 21. (Previously Presented) selection for interworking between a first and second network, said apparatus comprising
- a data server for storing location and service profile data for multiple differing network technologies including mobile network technology;
- at least two network protocol gateways for translating incoming location information requests into a protocol independent format;
- a processor for interfacing between said data server and said protocol gateways, wherein mobile user location related information is able to be provided by said apparatus for use in selection of said gateway;

wherein for calls from an internet telephony user/device to a mobile device, said apparatus operates as an inbound proxy for a given IP domain allowing selection of a location dependent routable temporary phone number such that a call path from the internet telephony device to the mobile device bypasses the mobile device's home MSC or gateway MSC; and for PSTN originated calls to an internet telephony user, cellular numbers are used to denote internet telephony telephones.

- 22. (Previously Presented) The apparatus of claim 21, wherein said selection is optimized by providing a selection that minimizes any one of triangle routing, a PSTN call leg or an Internet call leg.
- 23. (Original) The apparatus of claim 21, wherein selection of said gateway is optimized by selecting a gateway that minimizes a circuit switched portion of a call.
- 24. (Original) The apparatus of claim 21, wherein said location related information is used to assign a location dependent routable temporary telephone number for use in said gateway selection.

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- 25. (Original) The apparatus of claim 21, wherein said internet telephony accounts are SIP accounts.
- 26. (Original) The apparatus of claim 21, wherein said mobile location information can correspond to an internet telephony user.
- 27. (Original) The apparatus of claim 21 wherein said unified location manager is operable as a home location register for cellular networks and as a user registration and address resolution device for internet telephony networks.
- 28. (Original) The apparatus of claim 21, wherein said universal location manager uses a current Care-of-Address for providing said location related information for a mobile Internet telephony user.
- 29. (Original) The apparatus of claim 21, wherein one of said first and second networks is circuit switched network and one of said first and second networks is an internet telephony network.
- 30. (Original) The apparatus of claim 21, wherein the plurality of network protocols comprises at least two of ANSI-41, GSM MAP, SIP, H.323.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None